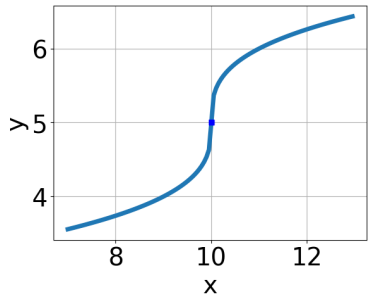
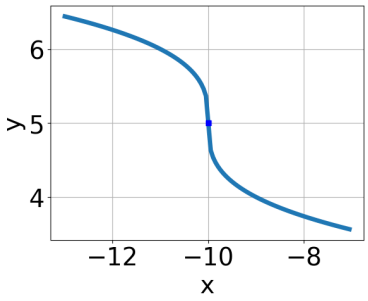
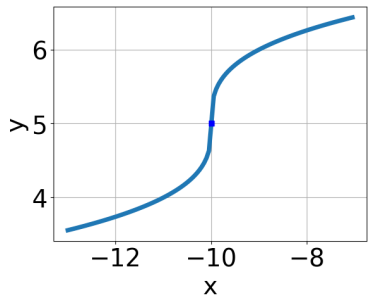
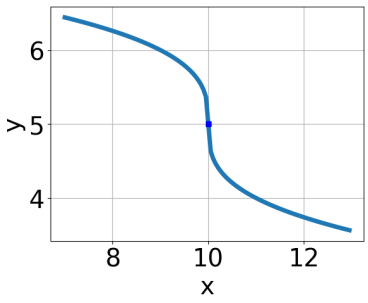
1. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x+10} + 5$$

A. 

C. 

B. 

D. 

E. None of the above.

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2. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-32x^2 - 56} - \sqrt{88x} = 0$$

A. $x_1 \in [-2.57, -1.51]$ and $x_2 \in [-2.7, 0.5]$

B. $x \in [-1.08, -0.6]$

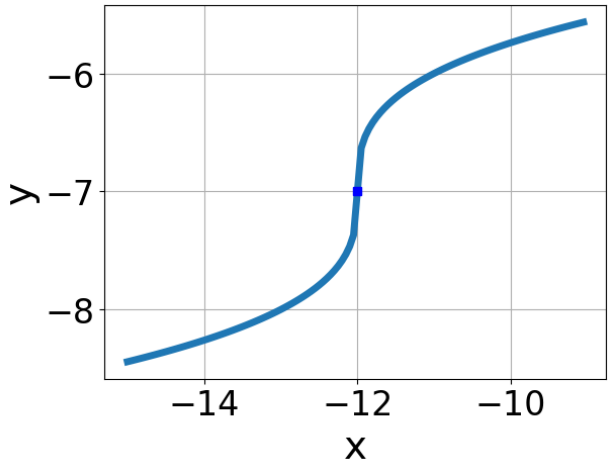
C. All solutions lead to invalid or complex values in the equation.

D. $x_1 \in [0.74, 2.1]$ and $x_2 \in [-0.2, 3.2]$

E. $x \in [-2.57, -1.51]$

---

3. Choose the equation of the function graphed below.



A. $f(x) = \sqrt[3]{x-12} - 7$

B. $f(x) = -\sqrt[3]{x-12} - 7$

C. $f(x) = \sqrt[3]{x+12} - 7$

D. $f(x) = -\sqrt[3]{x+12} - 7$

E. None of the above

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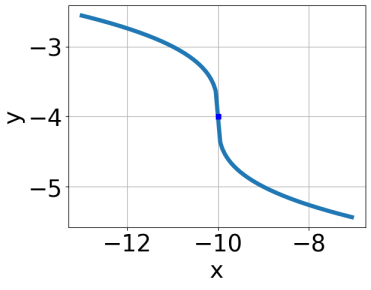
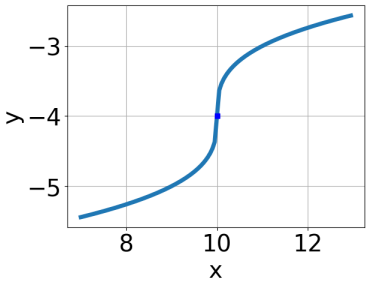
4. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x-10} - 4$$

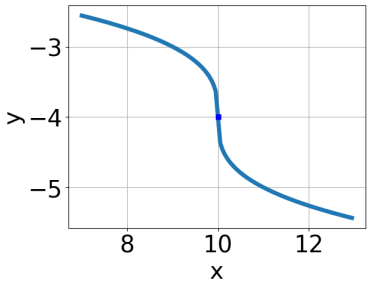
A.



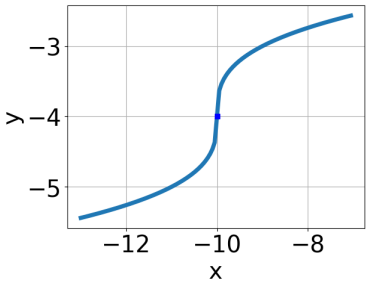
C.



B.



D.



E. None of the above.

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5. What is the domain of the function below?

$$f(x) = \sqrt[8]{3x + 8}$$

A. $(-\infty, a]$, where $a \in [-0.38, 1.62]$

B. $[a, \infty)$, where $a \in [-3.1, -1.8]$

C. $[a, \infty)$, where $a \in [-0.7, 0.7]$

D. $(-\infty, a]$, where $a \in [-8.67, -1.67]$

E. $(-\infty, \infty)$

---

6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{4x + 5} - \sqrt{6x + 3} = 0$$

A. $x \in [2.5, 4.7]$

B. $x_1 \in [-1.8, -0.8]$ and $x_2 \in [1, 3]$

C. $x_1 \in [-1.8, -0.8]$ and $x_2 \in [-1.5, 0.5]$

D. $x \in [-0.6, 2]$

E. All solutions lead to invalid or complex values in the equation.

---

7. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{3x + 9} - \sqrt{5x - 9} = 0$$

A. $x \in [6, 11]$

B. All solutions lead to invalid or complex values in the equation.

C. $x_1 \in [-5, -1]$ and $x_2 \in [0.8, 3.8]$

D. $x_1 \in [-5, -1]$ and $x_2 \in [5, 14]$

E. $x \in [-2, 5]$

---

8. What is the domain of the function below?

$$f(x) = \sqrt[8]{8x + 6}$$

A. $[a, \infty)$, where $a \in [-1.77, -1.02]$

B. $[a, \infty)$, where $a \in [-1.06, -0.68]$

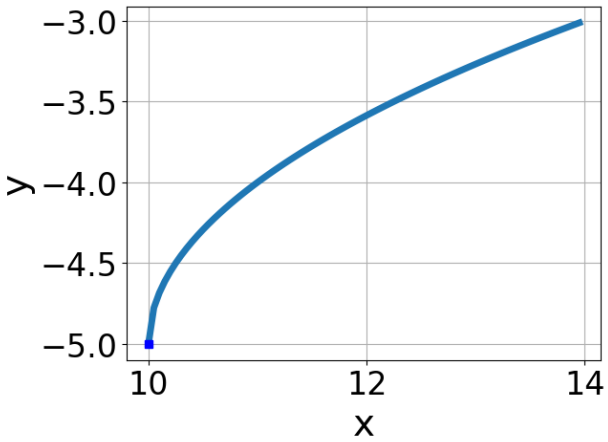
C. $(-\infty, \infty)$

D. $(-\infty, a]$, where $a \in [-1.91, -1.11]$

E. $(-\infty, a]$, where $a \in [-1.07, -0.23]$

---

9. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x - 10} - 5$

B. $f(x) = -\sqrt{x - 10} - 5$

C. $f(x) = \sqrt{x + 10} - 5$

D. $f(x) = -\sqrt{x + 10} - 5$

E. None of the above

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10. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-6x^2 + 48} - \sqrt{12x} = 0$$

A. $x_1 \in [-1, 11]$ and $x_2 \in [3.4, 5.9]$

B. All solutions lead to invalid or complex values in the equation.

C. $x_1 \in [-6, 0]$ and $x_2 \in [1.7, 3.1]$

D. $x \in [-6, 0]$

E. $x \in [-1, 11]$